	Type	Hits	Search Text	DBs	Time Stamp
1	BRS	2	(sauder.in. or arthur.in. or dunbrack.in.) and bace	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:15
2	BRS	199	(sauder.in. or arthur.in. or dunbrack.in.) and alzheimer$	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:16
3	BRS	148	S2 and structure	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:18
4	BRS	1106	(bace or mempasin or secretase or asp2) and alzheimer$	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:20
5	BRS	567	S4 and (crystal or silico or model)	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:19
6	BRS	421	S5 and inhibitor	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 09:20
7	BRS	85	S6 and (bace or mempasin or secretase or asp2).ab.	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/14 13:23
8	BRS	19	tang.in. and memapsin	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 12:51
9	BRS	6	(chopra.in. or svenson.in. or annis.in. or akopian.in. or bard.in. or stahl.in. or somers.in.) and (bace or memapsin or (beta near2 secretase) or asp2 or asp-2)	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 12:54
10	BRS	710	(crystal or (space adj group) or structur$) and (bace or memapsin or (beta near2 secretase) or asp2 or asp-2)	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 12:54
11	BRS	581	(crystal or (space adj group) or structur$) and (bace or memapsin or (beta near2 secretase))	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 13:12
12	BRS	423	(crystal or model or (space adj group)) and (bace or memapsin or (beta near2 secretase))	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 13:18
13	BRS	387	S12 and alzheimer	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 13:13
14	BRS	132	(crystal or (space adj group)) and (bace or memapsin or (beta near2 secretase))	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/01/20 13:18

SRNT

09/955,737 STN search strategy

      (FILE 'HOME' ENTERED AT 13:20:47 ON 20 JAN 2005)

      FILE 'REGISTRY' ENTERED AT 13:20:56 ON 20 JAN 2005
L1   0 S MEMAPSIN/CN
           E "MEMAPSIN"/CN 25
L2   2 S E7 OR E9
           E "MEMAPSIN"/CN 25
           E "BETA SECRETASE"/CN 25
           E "BACE"/CN 25
L3   5 S E5 OR E6 OR E7 OR E8 OR E9

      FILE 'MEDLINE, AGRICOLA, CAPLUS, BIOSIS, EMBASE, WPIDS' ENTERED AT
      13:24:16 ON 20 JAN 2005
L4   111 S (L2 OR L3 OR MEMAPSIN OR BACE OR (BETA (W) SECRETASE)) AND (C
L5   67 DUP REM L4 (44 DUPLICATES REMOVED)
L6   42 S L5 AND INHIBITOR

=>

IUBMB Enzyme Nomenclature

EC 3.4.23.46

Recommended Name: memapsin 2

Reaction: Broad endopeptidase specificity. Cleaves Glu-Val-Asn-Leu+Asp-Ala-Glu-Phe in the Swedish variant of Alzheimer's amyloid precursor protein

Other name(s): β-secretase; β-site Alzheimer's amyloid precursor protein cleaving enzyme 1 (BACE1)

Comments: Suggested to be the major "β-secretase" responsible for the cleavage of the β-amyloid precursor protein to form the amyloidogenic β-peptide that is implicated in the pathology of Alzheimer's disease. In peptidase family A1 but is atypical in containing a C-terminal membrane-spanning domain.

Links to other databases: BRENDA, EXPASY, KEGG, MEROPS, SWISS-PROT, ERGO, PDB, CAS registry number:

References:

1. Turner, R.T., III, Koelsch, G., Hong, L., CAStenheira, P., Ghosh, A. and Tang, J. Subsite specificity of memapsin 2 (β-secretase): implications for inhibitor design. *Biochemistry* 40 (2001) 10001-10006. [PMID: 11513577]

2. Hong, L., Turner, R.T., Koelsch, G., Shin, D., Ghosh, A.K. and Tang, J. Crystal structure of memapsin 2 (β-secretase) in complex with an inhibitor OM00-3. *Biochemistry* 41 (2002) 10963-10967. [PMID: 12206667]
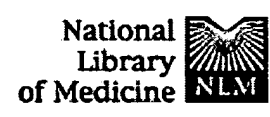
[EC 3.4.23.46 created 2003]

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h   che   c   b   b e   e   h

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- Search numbers may not be continuous; all searches are represented.
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Search	Most Recent Queries	Time	Result
#24	Search #22 Limits: **Publication Date to 2000**	13:08:28	258
#23	Search Field: **All Fields**, Limits: **Publication Date to 2000**	13:08:03	13076585
#22	**Related Articles** for PubMed (Select **10873463**)	13:07:53	361
#21	Search **sauder bace**	13:07:50	1
#15	Search #14 Limits: **Publication Date to 2000**	13:06:25	45
#14	**Related Articles** for PubMed (Select **14501012**)	13:00:37	249
#13	Search **hong memapsin**	12:59:22	12
#12	**PubMed Links** for Structure (Select **25082**)	12:58:32	1
#11	**PubMed Links** for Structure (Select **20504**)	12:58:18	1
#10	**PubMed Links** for Structure (Select **14727**)	12:58:01	1
#2	Search **hegyi barrel**	10:36:10	3
#1	Search **hegyi**	10:34:39	396

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Search	Most Recent Queries	Time	Result
#9 Search **#4 or #5 or #6 or #7**		12:57:33	10
#8 Search **#4 and #5 and #6 and #7**		12:57:05	5
#7 Search **memapsin**		12:56:41	7
#6 Search **beta-secretase**		12:56:35	9
#5 Search **beta secretase**		12:56:29	10
#4 Search **bace**		12:56:16	7

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Submit structure database
searches

Research
Structure Group research
projects

☐ **1: 1TQF**   MMDB, Links
Crystal Structure Of Human Beta Secretase Complexed With L- 124,671
[mmdbId:30330]

☐ **2: 1W51**   MMDB, Links
Bace (Beta Secretase) In Complex With A Nanomolar Non- Peptidic
Inhibitor
[mmdbId:29721]

☐ **3: 1W50**   MMDB, Links
Apo Structure Of Bace (Beta Secretase)
[mmdbId:29720]

☐ **4: 1UJK**   MMDB, Links
Vhs Domain Of Human Gga1 Complexed With C-Terminal Phosphopeptide
From Bace
[mmdbId:27979]

☐ **5: 1UJJ**   MMDB, Links
Vhs Domain Of Human Gga1 Complexed With C-Terminal Peptide From
Bace
[mmdbId:27978]

☐ **6: 1SGZ**   MMDB, Links
Crystal Structure Of Unbound Beta-Secretase Catalytic Domain
[mmdbId:27428]

☐ **7: 1PY1**   MMDB, Links
Complex Of Gga1-Vhs Domain And Beta-Secretase C-Terminal
Phosphopeptide
[mmdbId:25082]

☐ **8: 1O6N**   MMDB, Links
(1-16) Fragment Of The Beta-Amyloid Protein (Beta-App40, Beta-App42)
In TfeWATER 8020 SOLUTION
[mmdbId:21315]

☐ **9: 1M4H**   MMDB, Links
Crystal Structure Of Beta-Secretase Complexed With Inhibitor Om00-3

h cb hg e e e fcg c e ec f   b c e

[mmdbId:20504]

☐ **10:** 1FKN   MMDB, Links
Structure Of Beta-Secretase Complexed With Inhibitor
[mmdbId:14727]

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h   cb   h g   e   e   e   fcg c   e ec f   b   c   e